

The Groundplane



Dinner Location — Sheep King Restaurant 3213 Walnut Avenue 6PM

Newsletter Editorial — By Bill Artelt, WB9YVM

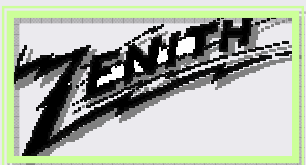
Zenith was one of the oldest radio manufactures in the United States. Right from the start Zenith radios cost a little more but you got outstanding performance and Zenith quickly became a well known name in the radio trade. Even their inexpensive sets performed well.

In 1919 two radio amateurs in Chicago got together to build radio equipment for the amateur radio operators in the Chicago area. Ralph Matthews (9ZN) and Karl Hassel (9TH) started The Chicago Radio Laboratory. They both applied for and received a license from Edwin Howard Armstrong to use the regenerative circuit.

Once they got the license to use the regenerative circuit they started to make radio equipment. In June of 1919 they started making equipment at Mathew's parents home. Equipment included a aluminum rotary spark gap unit called a Hy-Rad HR-1, Amplifigon audion control unit known as the model AGN-1,a

one step amp unit known as the model Amp-1, Type WV-700 shortwave meter unit, and they sold Paragon RA-6 receivers.

By 1923 Matthews and Hassel needed someone to invest in the company so they could keep up with the demand for radio sets. They were approached by Commander Eugene McDonald and a deal was struck that McDonald would buy the company and Matthews and Hassel would be chief engineers. With McDonald at the helm Zenith quickly became a nationally known brand name with dealers selling Zenith radios all over the country.



March Program

After our Business session hang — out until the Presentation begins — it will be really cool ! See you at 7:30pm!!

*March, 2006
Volume 7 Issue 3*

Editors Comments	1
Raffle News	2
Soldering Workshop	3
Upcoming Events	4
NMO Installation	5
NMO Install Photos	6
HRO Ad	7
Leadership Team & Useful Websites	8



Articles of Interest

- Western Union
- Delta Airlines Story

Era Ends — Western Union Stops Sending Telegrams

Robert Roy Britt

LiveScience Managing Editor

After 145 years, Western Union has quietly stopped sending telegrams. On the company's web site, if you click on "Telegrams" in the left-side navigation bar, you're taken to a page that ends a

technological era with about as little fanfare as possible: "Effective January 27, 2006, Western Union will discontinue all Telegram and Commercial Messaging services. We regret any inconvenience this may cause you, and we thank you for your loyal patronage. If you have any questions or concerns, please contact a customer service representative."

The decline of telegram use goes back at least to the 1980s, when long-distance telephone service became cheap enough to offer a viable alternative in many if not most cases. Faxes didn't help. Email



could be counted as the final nail in the coffin.

Western Union has not failed. It long ago re-focused its main business to make money transfers for consumers and businesses. Revenues are now \$3 billion annually. It's now called Western Union Financial Services, Inc. and is a subsidiary of First Data Corp. The world's first telegram was sent on May 24, 1844 by inventor Samuel Morse. The message, "What hath God wrought," was transmitted from Washington to Baltimore. In a crude way, the telegraph was a precursor to the Internet in that it allowed rapid communication, for the first time, across great distances.

Western Union goes back to 1851 as the Mississippi Valley Printing Telegraph Company. In 1856 it became the Western Union Telegraph Company after acquisition of competing telegraph systems. By 1861, during the Civil War, it had created a coast-to-coast network of lines.

Raffle Prizes — Gene Arrillaga, KF6ZYD

Need or want a new HT before you get your tax return back? Here is your chance. For an investment of only \$5 you can get 5 tickets in the monthly raffle and chance to win a 5 watt, 2 meter HT.

This month we are giving away a Kenwood TH-K2 complete with an alkaline battery pack and a Ni-MH battery pack with charger. The TH-K2 features 3 RF output levels approximately 5W, 1.5W and 0.5W as well as Priority scan, 6-character alphanumeric memory names,



Weather alert/RX, built in CTCSS, DCS, a large 13-segment backlit LCD display and the ability to be programmed from your PC using free MCP-1A software available from Kenwood.

As usual you will be able to invest in additional

tickets and there will be some additional minor prizes.

If you have any ideas as to the types of prizes you would like to see awarded during the monthly raffles, please let me know.

Soldering Workshop — By Mike Studer, K6EEP

March 11 Soldering Workshop

For those of you attending the soldering workshop at the Veterans Hall on March 11th here is what you should try to bring. Nothing fancy needed, just bring what you normally use. If you don't have an item don't worry about it we will figure something out.

Tools

=====

1. A soldering iron
2. Solder (Rosin Core)
3. Wire cutters
4. Needle nose pliers
5. De-soldering wick
6. Solder sucker
7. Wire strippers
8. Anything else you typically use when soldering or de-soldering, like a magnifying glass

Materials

=====



1. Any old circuit board you have laying around

It can be an old card out of a PC or the guts from a TV set.

I will have some wire for everyone to use. I will show how to splice antenna wire together and solder it properly. A Field Day type exercise.

We will mainly be focusing on circuit boards. Removing parts and installing parts. When you select your circuit board you might want to pick one with big parts and only a couple wires per part. It will be easier to work with.

But if you want to do IC's go right ahead and bring those boards too! I think we will have some fun regardless.

I will demonstrate how to do cold solder joints and create solder bridges. I may have to ask for some help with that part of the workshop. Now these are things you don't want to do when soldering. But it is good to know what to look for in your work.

I am looking forward to seeing you all there!

Delta Airlines had a well written article in the February issue of "Sky" magazine. The tag line is: "Natural disasters can bring out many heroes. Ham radio operators are usually among them."

Go to:

http://www.deltasky.com/2006_02/RolePlaying/index.html

Frequency Flyers

Natural DISASTERS can bring out many heroes. Ham radio operators are usually among them.



By Timothy Harper

Happenings Around — By Steve Wilson, KA6S

<i>Date</i>	<i>Time</i>	<i>Description</i>
March 3	7:00 PM	Board Meeting
March 4	5:00 PM	Transmitter Hunt
March 5	7:00 AM	Livermore Swap - Robertson Park
March 10	7:30 PM	SBARA General Meeting
March 11	5:00 AM	Foothill Flea Market
March 11	12 PM - 3 PM	Soldering Workshop - Veterans Hall
March 13	7:00 PM	Sunnyvale VEC Exam - Fremont
March 18	5:00 PM	Transmitter Hunt - Fox's Choice
April 1-2	Multi-Day Event	Baker to Vegas
April 1	5:00 PM	Transmitter Hunt
April 2	7:00 AM	Livermore Swap meet
April 7	7:30 PM	SBARA Board Meeting
April 8	5:00 AM	Foothill Flea Market
April 10	7:00 PM	Sunnyvale VEC Exam - Fremont
April 14	7:30 PM	SBARA General Meeting
April 21-23	Multi-Day Event	Visalia International DX Convention
April 22	6:00 PM	Transmitter Hunt - Fox's Choice
April 23	8:00 AM	Valley of the Moon (Sonoma) Ham Fest
April 29	10:00 AM	Pack a Lunch T Hunt

Folks - I'm looking for input - whether it is ARRL contests you think other people would like to know about, testing, whatever. Please let me know by dropping me an email at ste-view@ka6s.com.

Installing an NMO Connector — By Mike Studer, K6EEP

"NMO" is a type of antenna base mounting system for mobile antennas. There are several manufacturers that make cables with the NMO connector on the end.

I typically use Larsen.

This method is for the brave who plan on making a permanent installation hole for mounting an antenna in their vehicle.

The first step to determine if there is a good location on your vehicle to install an antenna. You need a flat area about 3 inches in circumference.

This flat area should be horizontal so the antenna will be as close to vertical as possible once it is installed. The highest point on your vehicle is typically the roof and it is the best place to install an antenna. You will get much better radio coverage with the antenna up higher. The center of the roof is best from a RF standpoint. However you have to be able to route the coax. And you will need access to the underneath part of the connector. You also have to consider how you are going to run the coax!

I have added a trick to this mounting system. A fender washer to spread the mechanical load of the antenna over a wider area of the vehicle's body. This helps prevent the bodywork from tearing when the antenna hits things. And makes the antenna install much stronger. I actually retrofitted my vehicle AFTER having problems with the sheet metal

tearing. So maybe this will prevent you from having problems like I did.

Required parts

A NMO connector has 3 parts, the locking ring, the O ring, and the mounting assembly. To do this install you will also need a fender washer, 1/2" center hole x 2" diameter. The washer should be the thickness of a dime, NOT a nickel. I had to do some careful searching at the hardware store to find the right thickness. Thinner is better. Otherwise the center conductor of the NMO will be recessed to far for the antenna's center conductor to reach it.

You will also need some JB weld to glue the washer down. You will also need a Unibit that can do a 3/4" hole. If you use the Unibit to drill the hole in the car make sure you won't hit anything when you punch through.

Assembly

Take the fender washer and enlarge the center hole to 3/4" using the Unibit.

Make sure you clamp the washer down when you do this! It spins like mad otherwise. At this point you should be working from the inside of the vehicle. All these parts mount on the INSIDE of the vehicle. Only the NMO locking ring will go on the outside of your vehicle.

Installing an NMO Connector — By Mike Studer, K6EEP

Slide the modified washer over the coax connector and up to the NMO mount. The washer should sit on the shoulder area of the NMO mount just below where the locking ring will go.

Now get a bunch of paper towels and have them handy for the gluing stage.

Keep JB weld off the threads! You will never remove the antenna mount if there is JB weld on the threads. I confess I got glop on the threads. But just wipe it all off before you install the locking ring. Mix up your JB weld and cover the top of the washer with it (don't get carried away, a thin layer is fine). This part of the washer will press up against the vehicle's sheet metal from under the area where you drilled the mounting hole. Now feed the NMO mounting assembly up into position and start screwing on the locking ring from the outside of the vehicle. You may need a helper to do this. Make sure the O ring stays in place to seal moisture out from under the locking ring. Also watch to make sure the washer stays centered on the shoulders of the mounting assembly. The locking ring will act as a clamp to hold everything together while the glue dries. I would wait 12 hours before I drove the vehicle with an antenna installed. You can drive the car all you want before that, but don't put an antenna on the connector.

NOTES

Never leave a NMO connector exposed to the weather! It says that right in the instructions. And that's how I ruined mine. DOH!

You can see how well this washer trick works by giving the VHF/UHF antenna on my truck a jiggle at the next SBARA meeting.

If you have any specific questions please feel free to drop me an email, k6eep@hamsoftware.org.

Mike K6EEP

NMO Mount



ANAHEIM, CA
(Near Disneyland)
933 N. Euclid St., 92801
(714) 533-7373
(800) 854-6046
Janet, KL7MF, Mgr.
anaheim@hamradio.com

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(800) 854-6046
Eric, KAGIHT, Mgr.
Victory Blvd. at Buena Vista
1 mi. west I-5
burbank@hamradio.com

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Handy Web Links

SBARA Web Site	http://www.sbara.org
ARRL Main Site	http://www.arrl.org/
ARRL SCV Division	http://www.arrl.org/sections/SCV.html
ARRL East Bay Section	http://www.pdarrrl.org/ebsec/index.html
ARRL Contest Page	http://www.arrl.org/contests
Contest Calendar	http://www.hornucopia.com/contestcal
Callsign Lookup (QRZ)	http://www.qrz.com/
Vanity Callsign Info	http://www.vanityhq.com/
IRLP Main Page	http://www.irlp.net/
AMSAT	http://www.amsat.org/
FCC Services	http://wireless.fcc.gov/services/amateur

SBARA on the Internet

<http://www.qsl.net/sbara>

On the Air at 147.015 + PL 103.5

Fremont Repeaters & Net Information

WA6PWW - 147.015 +600Khz, PL 103.5
 WA6PWW - 223.900 -500Khz, PL 107.2
 WA6PWW - 442.600 +5Mhz, PL 107.2
 N6OXR - 146.94 -600Khz, PL 123.0
 N6OXR - 441.525 +5Mhz, PL 123.0
 ARES - Tuesday @ 7:30pm - 147.015 + PL 103.5

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The opinions expressed in the Groundplane are strictly those of the authors.

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The Ground Plane



ANNOUNCEMENTS

SBARA monthly meeting:

March 10th.

Veterans Hall in Niles



It's March — Come on Down and Have Some Fun !!!

The Ground Plane—KU6S

<http://www.sbara.org>

South Bay Amateur Radio Association — SBARA

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